

CLAIMS

What is claimed is:

1 1. A method, comprising:

2 receiving a logical connection number (LCN) associated with a first logical
3 connection from a connection command;

4 using the LCN as a first index to a location in a first memory area to
5 retrieve a second index to a location in a second memory area; and

6 using the second index to access the first logical connection from the
7 location in the second memory area.

1 2. The method of claim 1, wherein the location in the first memory area is
2 associated with an availability indicator, the availability indicator being on
3 when the first logical connection is available in the second memory area, the
4 availability being off when the first logical connection is unavailable in the
5 second memory area.

1 3. The method of claim 2, wherein when the connection command is an
2 allocate command and the availability indicator is on, the first logical
3 connection is allocated from the location in the second memory area.

1 4. The method of claim 3, wherein when the connection command is a
2 deallocate command and the availability indicator is off, the first logical
3 connection is deallocated to the location in the second memory area.

1 5. The method of claim 4, wherein the second memory area comprises an
2 array of available logical connections, each array entry associated with a
3 LCN of an available logical connection, wherein a third index is used to
4 access a second logical connection at a bottom location of the array.

1 6. The method of claim 5, wherein when the first logical connection associated
2 with the connection command is available and when the connection
3 command is the allocate command, the second logical connection accessed
4 by the third index is swapped with the first logical connection accessed by
5 the second index such that the third index is used to access the first logical
6 connection, wherein the first memory area is updated to reflect change in
7 location of the second logical connection.

1 7. The method of claim 6, wherein after the first logical connection is accessed
2 the third index is decremented to allow access to a new bottom location of
3 the array.

1 8. The method of claim 5, wherein when the first logical connection associated
2 with the connection command is unavailable and when the connection
3 command is the deallocate command, the third index is incremented by
4 one to be used to access a new bottom location of the array, wherein the
5 first logical connection from the deallocate command is returned to the
6 array at the new bottom location of the array.

1 9. The method of claim 8, wherein the availability associated with the first
2 logical connection is set to on, and wherein the second index is updated to
3 allow access to the first logical connection.

1 10. A computer readable medium having stored thereon sequences of
2 instructions which are executable by a digital processing system, and
3 which, when executed by the digital processing system, cause the system to
4 perform a method, comprising:
5 receiving a logical connection number (LCN) associated with a first logical
6 connection from a connection command;
7 using the LCN as a first index to a location in a first memory area to
8 retrieve a second index to a location in a second memory area; and
9 using the second index to access the first logical connection from the
10 location in the second memory area.

1 11. The computer readable medium of claim 10, wherein the location in the first
2 memory area is associated with an availability indicator, the availability
3 indicator being on when the first logical connection is available in the
4 second memory area, the availability being off when the first logical
5 connection is unavailable in the second memory area.

1 12. The computer readable medium of claim 11, wherein when the connection
2 command is an allocate command and the availability indicator is on, the
3 first logical connection is allocated from the location in the second memory
4 area.

4 is incremented by one to be used to access a new bottom location of the
5 array, wherein the first logical connection from the deallocate command is
6 returned to the array at the new bottom location of the array.

1 18. The computer readable medium of claim 17, wherein the availability
2 associated with the first logical connection is set to on, and wherein the
3 second index is updated to allow access to the first logical connection.

1 19. A system, comprising:

2 a standby card to receive a connection command from an active card, the
3 connection command associated with a logical connection number
4 (LCN) of a first logical connection, the standby card processing the
5 connection command on the standby card, said processing comprises:
6 using the LCN as a first index to a location in a first memory area to
7 retrieve a second index to a location in a second memory area;
8 and
9 using the second index to access the first logical connection from the
10 location in the second memory area.

1 20. The system of claim 19, wherein the location in the first memory area is
2 associated with an availability indicator, the availability indicator being on
3 when the first logical connection is available in the second memory area, the
4 availability being off when the first logical connection is unavailable in the
5 second memory area.

1 21. The system of claim 20, wherein when the connection command is an

allocate command and the availability indicator is on, the first logical connection is allocated from the location in the second memory area.

22. The system of claim 21, wherein when the connection command is a deallocate command and the availability indicator is off, the first logical connection is deallocated to the location in the second memory area.

23. The system of claim 22, wherein the second memory area comprises an array of available logical connections, each array entry associated with a LCN of an available logical connection, wherein a third index is used to access a second logical connection at a bottom location of the array.

24. The system of claim 23, wherein when the first logical connection associated with the connection command is available and when the connection command is the allocate command, the second logical connection accessed by the third index is swapped with the first logical connection accessed by the second index such that the third index is used to access the first logical connection, wherein the first memory area is updated to reflect change in location of the second logical connection.

25. The system of claim 24, wherein after the first logical connection is accessed the third index is decremented to allow access to a new bottom location of the array.

26. The system of claim 23, wherein when the first logical connection associated with the connection command is unavailable and when the

connection command is the deallocate command, the third index is incremented by one to be used to access a new bottom location of the array, wherein the first logical connection from the deallocate command is returned to the array at the new bottom location of the array.

27. The system of claim 26, wherein the availability associated with the first logical connection is set to on, and wherein the second index is updated to allow access to the first logical connection.

28. A system, comprising:

means for receiving a connection command from an active card, the connection command associated with a logical connection number (LCN) of a first logical connection; and

means for processing the connection command comprising:

means for using the LCN as a first index to a location in a first memory area to retrieve a second index to a location in a second memory area; and

means for using the second index to access the first logical connection from the location in the second memory area.

29. The system of claim 28, wherein the location in the first memory area is associated with an availability indicator, the availability indicator being on when the first logical connection is available in the second memory area, the availability being off when the first logical connection is unavailable in the second memory area.

1 30. The system of claim 29, wherein when the connection command is an
2 allocate command and the availability indicator is on, the first logical
3 connection is allocated from the location in the second memory area.

1 31. The system of claim 30, wherein when the connection command is a
2 deallocate command and the availability indicator is off, the first logical
3 connection is deallocated to the location in the second memory area.

1 32. The system of claim 31, wherein the second memory area comprises an
2 array of available logical connections, each array entry associated with a
3 LCN of an available logical connection, wherein a third index is used to
4 access a second logical connection at a bottom location of the array.

1 33. The system of claim 32, wherein when the first logical connection
2 associated with the connection command is available and when the
3 connection command is the allocate command, the second logical
4 connection accessed by the third index is swapped with the first logical
5 connection accessed by the second index such that the third index is used
6 to access the first logical connection, wherein the first memory area is
7 updated to reflect change in location of the second logical connection.

1 34. The system of claim 33, wherein after the first logical connection is accessed
2 the third index is decremented to allow access to a new bottom location of
3 the array.

1 35. The system of claim 32, wherein when the first logical connection

associated with the connection command is unavailable and when the connection command is the deallocate command, the third index is incremented by one to be used to access a new bottom location of the array, wherein the first logical connection from the deallocate command is returned to the array at the new bottom location of the array.

36. The system of claim 35, wherein the availability associated with the first logical connection is set to on, and wherein the second index is updated to allow access to the first logical connection.